Summer 2009

CEG 220-01: Introduction to C Programming for Engineers - I

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CEG 220 Introduction to C Programming for Engineers - I

Section 1 – Summer 2009 Tu & Th 6:05 – 7:45 p.m., RC 346
Last Update: June 16, 2009

Description:

This course provides a general introduction to computers as a problem-solving tool using the C programming language. Emphasis is on algorithms and techniques useful to engineers. Topics include data representation, debugging, and program verification. Some programming assignments may involve complex arithmetic and trigonometric and exponential functions. 4 credit hours. The course includes a scheduled laboratory section for which you must register.

Prerequisites:

MTH 229 (Calculus I) or EGR 101 (Engineering Mathematics). Some prior experience with computing or a programming language is helpful but not required.

Instructor:

Dr. Ronald F. Taylor, RC 340, 775-5122, ronald.taylor@wright.edu
Office hours: 3:00 – 5:00 p.m. Tuesday and Thursday. By appointment also.

Teaching Assistant:

Mr. Brandon Gump, RC 314, gump.5@wright.edu
Office hours: 2:00 – 4:00 p.m. Monday. By appointment also.

Textbook:

C Programming: A Modern Approach, 2nd Edition, K. N. King, W. W. Norton and Company, 2008, ISBN 978-0-393-97950-3.

Software:

Dev-C++ Version 4.9.9.2 for Windows. Free download (9.1 MB) from http://www.bloodshed.net

Alternate C compiler is the UNIX GNU C compiler available on the WSU unixapps1 machine. Other C compilers must be approved by the instructor.

Grading:

Three Exams @ 15 % each: 45 % (no comprehensive final during summer term). Eight Laboratories: 20 % . Four Projects : 35%. Closed book, closed notes Exams. Quizzes will also be given in class or take-home. Quiz points will be included as part of the 45% exams grade.

Grading scale: **A:** 100-90, **B:** less than 90-80, **C:** less than 80-70, **D:** less than 70-60, **F:** less than 60-0.

Policy:

Quizzes may be announced or unannounced and will usually be given at the beginning or near the end of lecture. Projects are due at the time and date specified on project handout. Use will be made of WebCT for grades and program submittals. No late exams or quizzes unless verifiable emergency. Grade on late Laboratories or Projects will be reduced by 10%. Submittals more than one day late will not be graded - "zero" grade assigned. Exceptions to the late policy may be made unusual circumstances. All work must be your own; sharing of

program code will result in a grade of "zero" for all involved. Sharing ideas and general computer skills with others outside of class is encouraged. Students are expected to read and follow the Academic Integrity Policy:

http://www.wright.edu/students/judicial/integrity.html

Course Home Page and WebCT:

The Course Home Page will contain lecture materials and assignments:

http://www.cs.wright.edu/people/faculty/rtaylor/ceg220

Grades will be posted and programs will be submitted through WebCT. Students should become familiar with WebCT (campus login username and password required) and should read the instructions on the entry page at:

http://wisdom.wright.edu

Schedule:

Topics and project assignment dates may vary. Exam dates and times are firm. July 7 - last drop date without grade; July 31 - last drop date "W" grade. More specific and detailed reading assignments will be discussed each week in lecture. Due dates for Projects and Laboratory assignments will be on WebCT.

Week	Chapter/Sections Study Reference for Lectures	Topics	Project/Exam	Date
1	1, 2, 3	C Fundamentals and Formatted Input/Output	Project 1 assigned	
2	4, 23.3, 7.1-7.5, 23.4	Expressions, Math Functions, Basic Types, Character Functions		
3	5, 6, 18	Selection Statement, Loops, and Declarations	Project 2 assigned	
4	22	File Operations	Exam 1	Th July 9
5	9	Functions	Project 3 assigned	
6	9, 10, 8	Functions, Program Organization, and Arrays		
7	8, 13, 23.5	Arrays and Strings	Exam 2	Th July 30
8	9.6, 11, 12	Recursion and Pointers	Project 4 assigned	
9	16	Structures		Tu Aug 7
10	16	Structures and C Applications		
Finals		Course Review, Exam (same classroom)		Th Aug 20